

## PLANNING FOR LOWER LIMB RECONSTRUCTIVE AND TENDON TRANSFER SURGERY: *the Long Haul*

For patients with Charcot Marie Tooth peripheral neuropathy and other neuropathic limb conditions, planning for bilateral foot and ankle surgery can be a daunting prospect. Dr Ellis and Dr Symes may have suggested that you consider surgery, this information sheet aims to help break down the pathway to surgery and postoperatively into some manageable steps.

### PREOPERATIVE PHYSIOTHERAPY:

Pre-operatively, you would be helped by physiotherapy that aims to isolate (i.e., show you) and strengthen the tibialis posterior tendon. This tendon is an important tendon to transfer and the stronger it is, the better will be your result.

Strengthening the tibialis posterior pre-operatively over **six or twelve months** is of definite benefit to you as is any attempt to strengthen the tibialis anterior and other muscles of the foot. In other words, some pre-surgery physiotherapy is of excellent advantage to you in your pathway towards surgery.

### WHEN TO HAVE SURGERY:

Please let us know about six weeks before your desired date of surgery. The reason for this is that this surgery takes a long time and I involve another surgeon, Dr Michael Symes, who has worked with me for some time. He is a qualified Foot and Ankle surgeon with Australian training and higher fellowship training overseas. We work in tandem to reduce the length of time of the operation: each surgeon does one leg simultaneously. Suffice to say, there is a bit of coordination here and the longer that we have to plan for surgery, the better it is.

Please remember that following surgery, patients are in **full plaster walking casts typically for a period of six weeks**. It is preferable not to have surgery at a time that would leave you in casts over the summer period. This is because it is hot and uncomfortable. Usually, a good time is in the window **between late March and early October**.

### POST-OPERATIVE PATHWAY:

#### Week 1 – 6: Week of Surgery and Healing

Dr Ellis and Dr Symes operate on Mondays at North Shore Private. You will commence walking in your plaster walking casts on the Friday after surgery on Monday. The first few days your feet are kept particularly highly elevated to reduce swelling.

Patients are usually discharged home following surgery with limited physiotherapy to let the tendons heal safely. You will mobilise on crutches and in your plaster casts at home for the first few weeks.

#### Week 6 – 8: Inpatient rehabilitation

At **six or seven weeks post-operatively**, you will commence rehabilitation. This may be with a specialist neuromuscular physiotherapist or sometimes with an admission to a rehab centre. At this time, your plaster casts will be removed and protective AirCast or similar CAM boots will be fitted.

Dr Symes and Dr Ellis highly recommend intensive physiotherapy/rehab over this period with specialist physiotherapists who have expertise in gait retraining after tendon transfer to supervise the significant amount of intensive work that needs to be done by patients at this critical stage.

Dr Ellis or Dr Symes will review you in the rooms at this time following your cast removal to check on your feet and ankles before you commence intensive physiotherapy and organise any special instructions.

Week Six – Three Months: Protective CAM boots

Between **six weeks and three months**, you will continue to spend some time in your protective CAM boots. This is to prevent fatiguing the transfers and losing the value of re-education which you will have worked on so hard. You will sleep in the boots to stop the feet from adopting their previous position for at least six weeks after the removal of your plaster casts (i.e. until **approximately twelve weeks post-op**).

Generally, it is quite an intrusive time with a lot of therapy and you will be asked to do a lot. It sometimes seems hard to make the transfers work and patience and resilience are very helpful attributes to have at that difficult time.

Three Months and onwards: It takes time

You will continue attending physiotherapy and strengthening your tendon transfers. Your physiotherapist can work with you to perform daily tasks and build towards returning to full time work or any particular challenges of your profession.

Specific instructions on rehabilitation will be provided to give to your physiotherapist. At this stage, it is advisable to work on tendon glide, with steady tension and stretch and repetitive low strain motion.

The tibialis posterior tendon transfer tends to get held up as it passes from the posterior to anterior compartment with adhesions.

The tibialis post muscle also needs to strengthen and overcome its loss of power when transferred and then to be deducted to work in what is usually an antagonist phase of gait....it all takes time.

Good results have been obtained by patients who swim/attend hydrotherapy regularly. A short swim fin when doing laps is a fantastic idea and can led to both a strong muscle, a well gliding transfer, good range and re-education of tib post in active dorsiflexion.

**Dr Andrew Ellis**